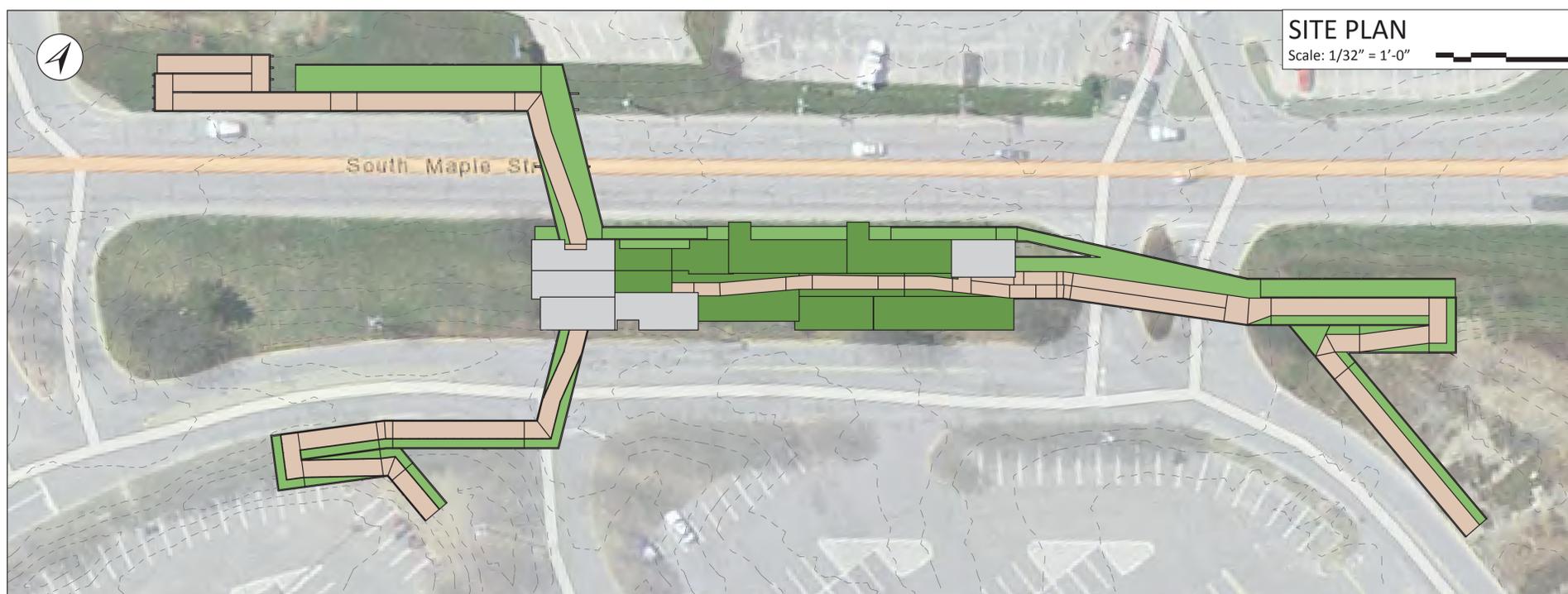
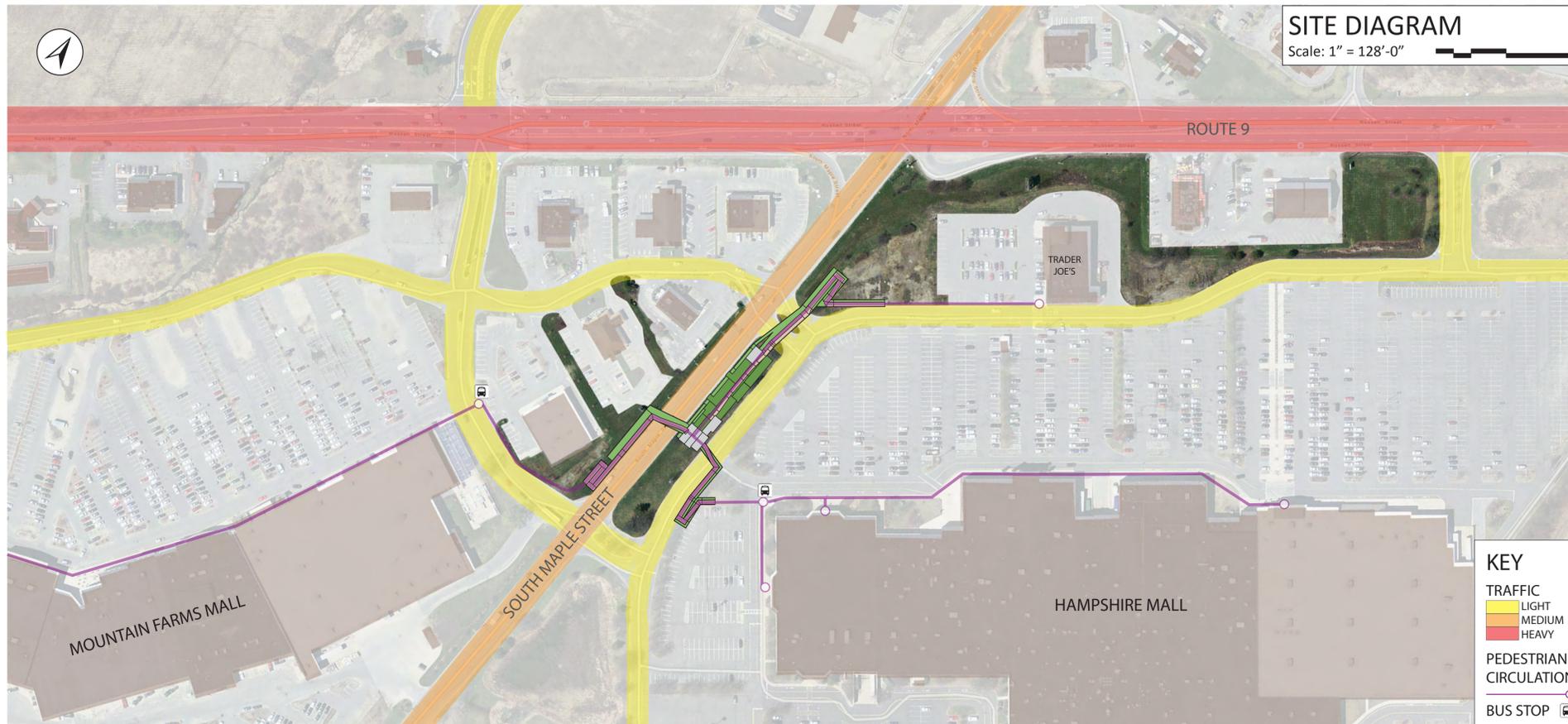


SHEEP ON THE STRIPS



Why Sheep?

The decision to use animals versus gas powered equipment for landscape maintenance is becoming a more relevant question as sustainability increasingly becomes one of the main driving forces behind a design. Sheep on the strips is a place for the functionality of sheep to be applied to a local area. The animals are used to maintain the buffer strips around the Hampshire and Mountain Farms Mall, and the products that the sheep make are processed and sold right back to the community. Sheep are one of the best animals for grazing, since they eat mostly grass and shrubs. In this natural cycle, the sheep take care of the land, and the land takes care of the sheep.

As opposed to a landscaping crew, a flock of sheep make much less noise, and are not a visual obstruction. Products collected from the sheep include milk, wool, meat, and manure. This facility will also serve as an educational outreach opportunity, to teach people about the benefits of raising a flock, and how animals can be used for landscaping maintenance as well.

The structure is composed of a central hub with three connecting bridges branching off to different areas. To the east, is pedestrian access from the Hampshire mall bus stop. To the west is pedestrian and sheep access to the Mountain Farms Mall, and to the north is pedestrian and sheep access to the Trader Joe's area.

The bridges serve as circulation paths for the sheep to travel between buffer strips in order to maintain them, and to provide a safer alternative to crossing South Maple Street when moving between the two malls. The main public space is a central hallway on the second floor with classrooms and gallery space off to one side with a sheep viewing area on the other. The sheep inhabit the ground floor, with various other rooms dedicated to milking, shearing, and compost. Three caretakers work at the sheep center, and life on the mostly private third floor.

The Site

Most of the site is grasslands, which sheep prefer. Deciduous trees and smaller bushes are scattered around the strips.



SHEEP ON THE STRIPS



Above: A central boardwalk runs along the length of most of the roof. A green roof on either side supports local vegetation and food production, while insulating the building and slowing down water runoff.

Right: Sheep shelters are located on the ground floor with public viewing areas above.



Pedestrian circulation is devoted to an elevated walkway while sheep occupy the lower green bridges. Higher walls around the sheep pathways help to prevent them from jumping over.

The Building

Sheep on the strips brings the benefits of sheep into the local area of the Hampshire Mall and Mountain Farms Mall. The primary goal of the structure is to facilitate access to multiple grazing area on different buffer strips for the sheep, while also providing the same kind of access to pedestrians, the most important being the connecting between the two malls.

The building is divided up into three areas. The first floor contains the indoor shelter for the sheep, and spaces for milking, shearing, and processing of compost. The space is mostly open to the outside, and is unheated. On the second floor is the public space, devoted to a balcony for overlooking the sheep below, classrooms, workshops, and gallery space. On the third floor is a private living area for the three caretakers that look after this facility.

The caretakers use the bridges to herd the flock of sheep around to different buffer strips for the use of vegetation control. When one area has been sufficiently grazed, they are moved onto the next strip, and the cycle repeats.



The zigzagging pathway and boardwalk system used in the Highline was adapted to fit on the bridges crossing over the roads around the mall.

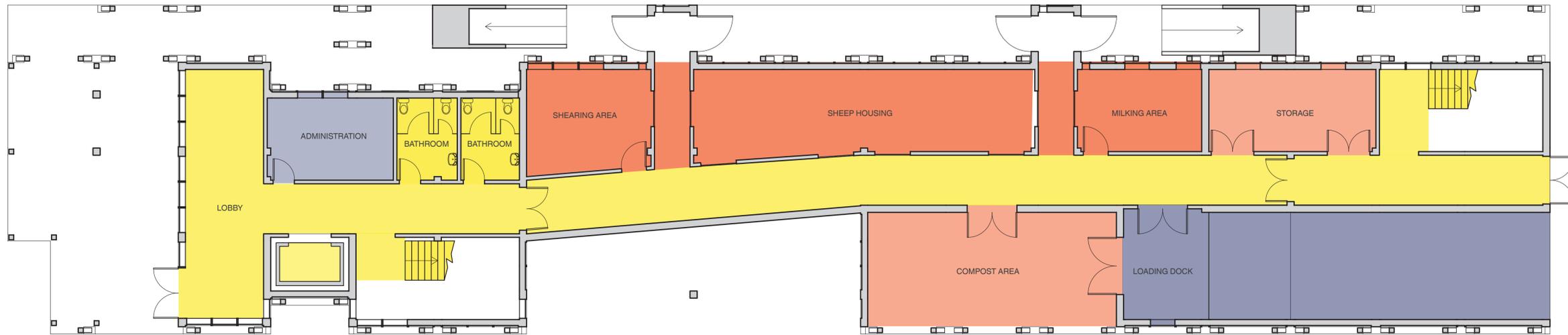


The material selection used for the Strawberry Vale School was applied to the sheep facility. Darkened steel beams made up the structural system while weathered wooden planks were used for walls and walkways.

The diagrid structure found on the inside of the Borusan Music & Art House was selected to be the final structural system used in the sheep system, for its unique approach to the traditional diagrid.

The diagrid structural system found on NEO bankside was experimented with in determining the structural system for the sheep facility.

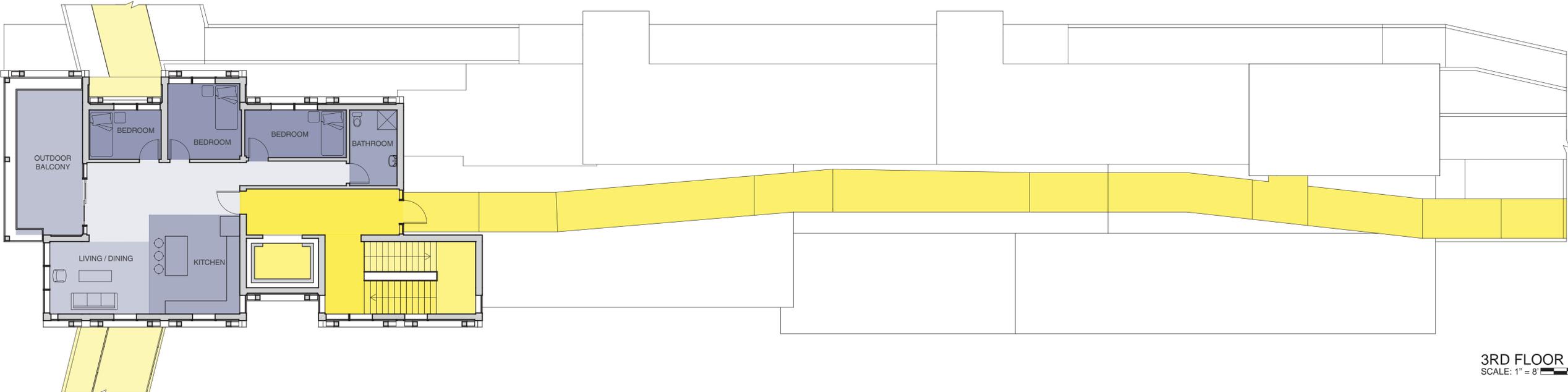




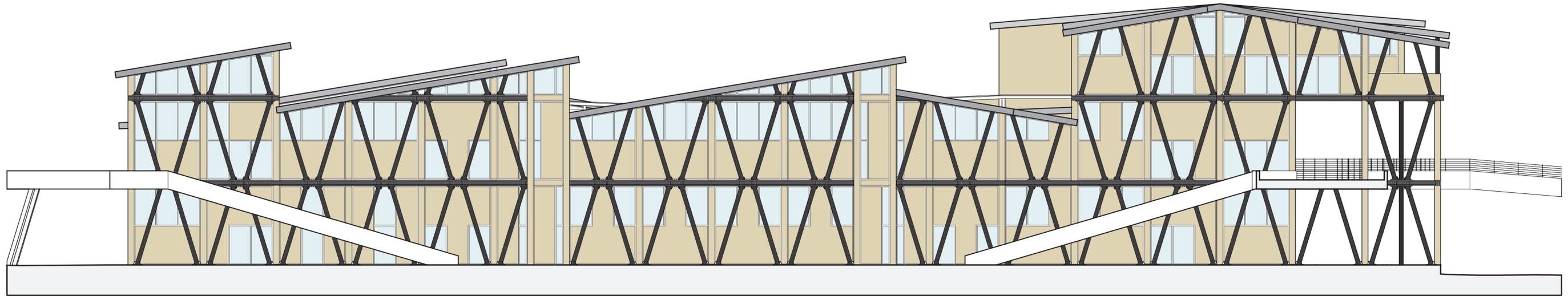
1ST FLOOR PLAN
SCALE: 1" = 8'



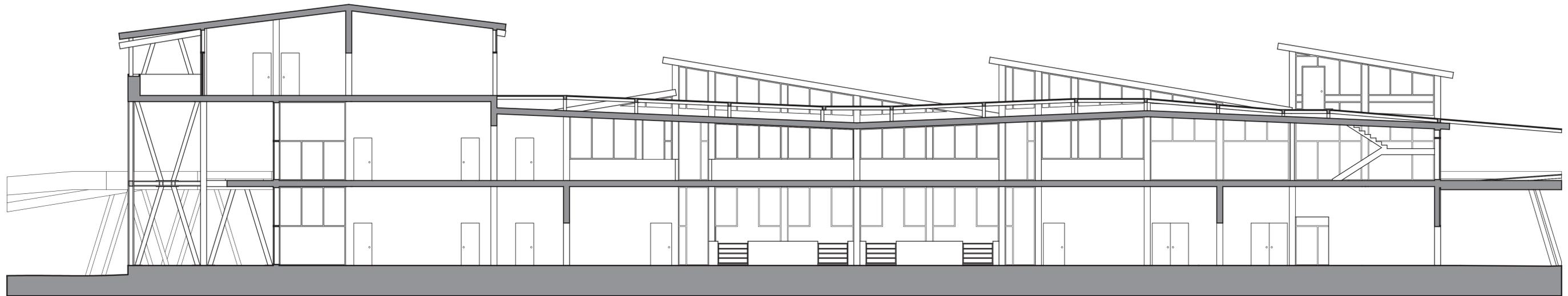
2ND FLOOR PLAN
SCALE: 1" = 8'



3RD FLOOR PLAN
SCALE: 1" = 8'



NORTH-SOUTH ELEVATION
SCALE: 1" = 8'



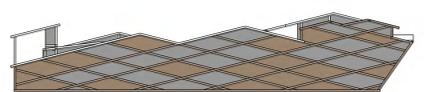
SOUTH-NORTH SECTION
SCALE: 1" = 8'



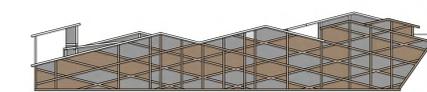
WEST-EAST SECTION
SCALE: 1" = 8'



PHASE 1
This version takes a dominantly horizontal emphasis, with major columns protruding through to the exterior.



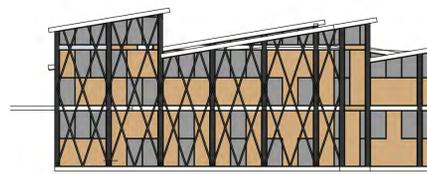
PHASE 2
Phase two takes on a diagrid approach, with no vertical columns or horizontal elements visible. Diamond faces can either be solid or void. Not chosen because there is not enough flexibility in the solid / void choosing.



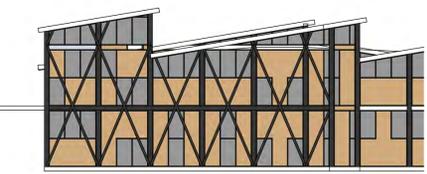
PHASE 3
This option is similar to the previous but allows major vertical columns to be expressed. It always permits more varied openings to either show or hide the spaces behind.



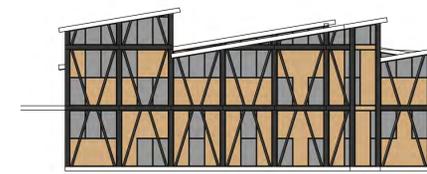
PHASE 4
Phase four is a pure vertical design, using a smaller square grid to delineate between glass and solid.



PHASE 5
A more radical approach than the previous, this design rotates the diagrid 90 degrees, and places a three by two grid for each opening behind the structural members.



PHASE 6
Similar to the previous design, but with a diagrid that is twice as big.



PHASE 7
Puts a twist on the traditional diagrid form. Inspiration was taken from the Borusan Music & Arts House. The structural system in this phase is the most separated from the aesthetic façade behind.

Facade Progression

In the beginning of the design process, the façade of the building was purely an aesthetic skin wrapped over the exterior. Three options were considered. A horizontal, vertical, and diagonal / diagrid approach. Glass vs. solid walls was determined by the program behind the façade. Private areas and restrooms were more solid, while public spaces and clearstories remained open. Further along in the design process, the façade was adjusted to reflect a more functional and structural approach. The next designs combined the vertical option and the diagrid option that were seen before, but placed the structural diagrid over the aesthetic function of the walls. The grid was also rotated to become more vertical, to better handle building loads. Two projects were used as inspiration for the final designs. The first was the diagonal structural system on the exterior of the NEO Bankside building by Rogers Stirk Harbour + Partners. The second was the interior columns in the Borusan Music & Art House by Gad Architecture.